REMARKS

The Applicants appreciate the Examiner taking time to participate in a phone conference on March 29, 2007. Claims 1-51 are currently pending in the patent application. Of these pending claims, only claims 1, 17, 35, 40, and 47 are independent claims. Claims 2-16, 18-34, 36-39, 41-46, and 48-51 depend from these claims. Applicants respectfully request allowance of all the pending claims in view of the subsequent remarks regarding the above-mentioned independent claims.

I. Claim Amendments

As discussed in the phone conference with the Examiner, Applicants have amended independent claims 1, 17, 35, 40, and 47. Applicants amended claims 1, 17, 35, 40, and 47 to clarify that the "optimum viewing display size" is determined at a decoder. Support for these amendments can be found in the detailed description at least in FIG. 2B and at least in paragraphs 22, 57, and 82.

As discussed in the phone conference with the Examiner, claims 1 and 35 have been amended to remove the limitation of basing the coding difficulty value on a signal-to-noise ratio.

II. Remarks re 35 U.S.C. §103 rejections

For a *prima facie* case of obviousness, there must be a motivation to modify the reference or combine reference teachings, ***and*** the cited references <u>must teach or suggest all of the claim limitations</u> ***with*** a reasonable expectation of success. *In re Vaeck*, 947 F.2d 488 (Fed. Cir. 1991). In order for a reference to be effective prior art under 35 U.S.C. § 103, it must provide a motivation whereby one of ordinary skill in the art would be led to do that which the applicant has done. See *Stratoflex Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1535, 218 USPQ 871, 876

(Fed. Cir. 1983). The Patent Office has the burden under 35 U.S.C. § 103 to establish a *prima facie* case of obviousness, which can be satisfied only by showing some objective teaching in the prior art would lead one to combine the relevant teachings of the references. See *In re Fine*, 837 F.2d 1071, 1074 (Fed. Cir. 1988). It is axiomatic that in order for a *prima facie* case of obviousness to be properly presented, a motivation to combine the references either must exist expressly or implicitly. *See In re Rouffet,* 149 F.3d 1350, 1357, 47 U.S.P.Q.2d 1453, 1457-58 (Fed. Cir. 1998).

A. *Nakagawa* and *Ismaeil* – Claims 1, 17, and 35

In the Office Action, claims 1, 11, 17-18, 25-27, and 35 were rejected under 35 U.S.C. §103 as unpatentable over U.S. Patent No. 6,025,880 ("*Nakagawa*") in view of U.S. Patent No. 6,876,703 ("*Ismaeil*"). Since claims 1, 17, and 35 are independent and claims 2-16, 18-34, 36-39, 46, and 51 depend from these independent claims, the comments below will focus on these independent claims. As detailed below, a proper *prima facie* case of obviousness has not been presented. The rejections should be withdrawn for at least this reason.

Encoding resolution is an attribute of a visual object (such as a video stream). Encoding resolution is determined at an encoder, where a visual object is encoded based on an input with a specific encoding resolution and an output number of bits for efficient transmission or storage. When encoded video is delivered, it has the encoding resolution determined at the encoder, regardless of the compression method or the ultimate viewing display size.

Optimum viewing display size refers to displaying a visual object (such as a video stream) at a certain visual size, regardless of encoding resolution, such that visible noise is reduced, maximizing perceived quality. For example, a 640 x 480 pixel encoded resolution video can be displayed on a screen at any display size (i.e. full screen, 640 x 480, or 1280 x 960). A

video encoded at 640 x 480 may be able to be displayed at full screen with little noise, or the video may be so noise laden, that it must not be displayed at a very large display size (i.e. a display size like 1280 x 960 that is greater than its encoding resolution).

Nakagawa in view of *Ismaeil* does not make claims 1, 17, or 35 obvious for at least the reason that all the claim limitations have not been met. Neither *Nakagawa* nor *Ismaeil* teach or suggest a method or system for calculating an optimum viewing display size for an encoded visual object.

Nakagawa discloses a system that can determine an input picture resolution (encoding resolution) and encode the input picture at the determined resolution (encoding resolution) (See *Nakagawa*, col. 2, lines 1-10 and 44-60). Because *Nakagawa* addresses encoding resolution, and not viewing display size of an encoded visual object, *Nakagawa* does not teach the limitations of claims 1, 17, and 35.

Nakagawa teaches a system for determining an encoding resolution at which to encode an input video signal based on various network conditions. For example, if the network is experiencing low bandwidth, *Nakagawa* will encode a video signal at a low resolution. If the network is experiencing high bandwidth, *Nakagawa* will encode the video signal at a high resolution. In practice, a user of the *Nakagawa* system will view a video signal at varying encoded resolutions, possibly making for an unpleasant viewing experience.

FIG. 2 of *Nakagawa* illustrates a system whereby an original picture is converted to a first encoding resolution by resolution conversion means 21. Then, resolution determination means 23 can determine a second encoding resolution for a picture based off of the status of the transmission line buffer 25. At no point in FIG. 2 of *Nakagawa* is an optimum display size determined. The system described in *Nakagawa* effectively determines an encoding resolution

two times without regard to optimum viewing display size for maximizing perceived quality in a displayed visual object. *Nakagawa* does not determine an optimum viewing display size.

Ismaeil does not correct the failings of *Nakagawa*. *Ismaeil* does not teach or suggest a method or system for calculating an optimum viewing display size for an encoded visual object. *Ismaeil* teaches optimizing the use of motion estimation, permitting a reduction in an encoding resolution. (See *Ismaeil* Abstract). Furthermore, neither *Nakagawa* nor *Ismaeil* teach determining an optimum viewing display size at a decoder.

Claims 1, 17, or 35 are not obvious over *Nakagawa* in view of *Ismaeil,* as the combination of *Nakagawa* and *Ismaeil* does not teach or suggest all the limitations of claims 1, 17, or 35. Thus, Applicants respectfully request allowance of pending claims 1-16, 17-34, 35-39, 46, and 51.

B. *Bae* and *Lau* – Claim 40

In the Office Action, claims 40, 43, and 45-46 were rejected under 35 U.S.C. §103(a) as unpatentable over U.S. Patent No. 6,256,045 ("*Bae*") in view of U.S. Patent No. 6,681,043 ("*Lau*"). Since claim 40 is independent and claims 41-45 depend from this independent claim, the comments below will focus on independent claim 40. As detailed below, a proper *prima facie* case of obviousness has not been presented. The rejections should be withdrawn for at least this reason.

Bae in view of *Lau* does not make independent claim 40 obvious for at least the reason that all the claim limitations have not been met. *Bae* addresses prevention of memory overflow in a decoder. While *Bae* uses the term "display size," *Bae* refers to display size as the amount of data to be stored in memory (See *Bae*, Abstract). *Bae* equates display size to memory size because what is in memory is displayed. *Bae* refers to display size as a number of pixels, an

aspect ratio, or a data transmission rate (See *Bae*, col. 6, lines 5-7). As can be seen in *Bae* FIG. 2, block 204, *Bae* compares a source size and a display size. Source size is the bit rate coming in to a decoder and the display size is the memory size. *Bae* does not teach or suggest a method or system for calculating an optimum viewing display size for an encoded visual object (see above for a discussion of viewing display size). Furthermore, *Bae* does not teach determining an optimum viewing display size at a decoder.

Lau does not correct the deficiencies of *Bae*. *Lau* is directed to a user interface for video editing. *Lau* does not teach or suggest a method or system for calculating an optimum viewing display size for an encoded visual object or a display device for displaying a message indicating the optimum display size for the encoded visual object. FIG. 6 of *Lau* does not contain a message indicating an optimum display size; rather FIG. 6 displays various SNR information regarding a video object. As described and claimed in the present application, the system is capable of displaying a message to a viewer of a visual object (for example, a frame or a video stream) indicating that the video is playing at the optimal viewing display size. The message can not only inform the viewer of the optimal viewing display size, the message can present the viewer with an option to view, or not to view, the video at the optimal viewing display size (See detailed description, paragraphs 15 and 17). Furthermore, neither *Bae* nor *Lau* teach determining an optimum viewing display size at a decoder.

Claim 40 is not obvious over *Bae* in view of *Lau,* as the combination of *Bae* and *Lau* does not teach or suggest all the limitations of claim 40. Thus, Applicants respectfully request allowance of pending claims 40-45.

C. *Nakagawa* and *Klosterman* – Claim 47

In the Office Action, claims 47-50 were rejected under 35 U.S.C. §103(a) as unpatentable over *Nakagawa* in view of U.S. Patent No. 6,469,753 ("*Klosterman*"). Since claim 47 is independent and claims 48-50 depend from this independent claim, the comments below will focus on independent claim 47. As detailed below, a proper *prima facie* case of obviousness has not been presented. The rejections should be withdrawn for at least this reason.

As detailed above, *Nakagawa* does not disclose a method or system for calculating an optimum viewing display size. *Klosterman* does not correct the deficiencies of *Nakagawa*. *Klosterman* does not teach or suggest a method or system for calculating an optimum viewing display size for an encoded visual object or displaying a message indicating the optimum viewing display size for an encoded visual object. *Klosterman* relates to a program guide to display a schedule to a user. *Klosterman* describes providing messages to a user about upcoming programs, but not messages about optimum viewing display size (See *Klosterman*, col. 8, lines 26-50). *Klosterman* discloses the use of "Picture in a Picture" (PIP), whereby the smaller picture is a size that allows "decent video display" (See *Klosterman*, col. 8, lines 34-38). This, however, is neither calculating an optimum viewing display size, nor providing a message regarding optimum viewing display size. In fact, there is nothing to indicate in *Klosterman* that the PIP is displayed at an optimal viewing display size. Furthermore, neither *Nakagawa* nor *Klosterman* teach determining an optimum viewing display size at a decoder.

Claim 47 is not obvious over *Nakagawa* in view of *Klosterman,* as the combination of *Nakagawa* and *Klosterman* does not teach or suggest all the limitations of claim 47. Thus, Applicants respectfully request allowance of pending claims 47-50.

III. Conclusion

An obviousness rejection is unfounded in the absence of a suggestion/motivation, a teaching or suggestion of all of the claim limitations, or a reasonable expectation of success. As described above, the various combinations of *Nakagawa*, *Ismaeil, Bae*, *Lau*, and *Klosterman* does not teach or suggest all of the claim limitations of independent claims 1, 17, 35, 40, or 47. Since the requirements for obviousness under 35 U.S.C. 103(a) have not been satisfied, the Applicants respectfully assert that claims 1-51 are in a condition for allowance and request removal of the obviousness rejections.

Claims 1-51 are currently pending in the patent application. Of these pending claims, only claims 1, 17, 35, 40, and 47 are independent claims. As the Court noted in *In re Fine*, "dependent claims are nonobvious under section 103 if the independent claims from which they depend are nonobvious." 5 U.S.P.Q.2d 1569, 1600 (Fed. Cir. 1988). Since the Applicants respectfully assert that these independent claims are allowable, dependent claims 2-16, 18-34, 36-39, 41-46, and 48-51 are also allowable. Thus, Applicants respectfully request allowance of all the pending claims in view of the remarks regarding the above-mentioned independent claims.

Enclosed is a Request for Extension of Time (One Month). A fee of **$60.00** for a one-month extension of time filing fee is due. The Commissioner is hereby authorized to apply this fee and any additional fees which may be required, or credit any overpayment to Deposit Account No. 14-0629.

The Examiner is invited and encouraged to contact directly the undersigned if such contact may enhance the efficient prosecution of this application to issue.

Respectfully submitted,

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